

TOP SECRET

P 162218Z
FM NPIC

25X1

16 Aug 68 23 25X1

OUT 65733

AFSSO PACAF
AFSSO ACIC
AFSSO FTD
AFSSO USAFE
CNO
OPCEN
FICEUR

ZEM CITE NPIC 4381.

TOP SECRET TTTT

SSO SAC ALSO FOR 544 ARTW.

SUBJECT: CAMERA INFORMATION FOR MISSION 1104-1

1. THE MISSION UTILIZED TWO PAN CAMERAS, FOUR HORIZON CAMERA,
DUAL STELLAR CAMERAS, AND AN INDEX CAMERA.

2. CAMERA DATA

A. MAIN UNITS

FOCAL LENGTHS (MM)	PAN CAMERAS	PORT HORIZON	STAR HORIZON	HORIZON	
FWD	609.661	FWD	54.912	FWD	55.181
AFT	609.625	AFT	55.038	AFT	54.735

FILTERS

	PAN FWD	PRIMARY	W/25
		ALTERNATE	W/15 WITH 0.9 NEUTRAL DENSITY
	PAN AFT	PRIMARY	W/21
		ALTERNATE	SF-05

FWD STAR HOR W/25 (NG-3 AUXILIARY)

FWD PORT HOR W/25 (NG-3 AUXILIARY)

AFT STAR HOR W/25

AFT PORT HOR W/25

APERTURE

STAR HOR F/8.0

PORT HOR F/6.3

SLIT WIDTH (IN) POSITIONS

	1	2	3	4	FAILSAFE
FWD	.199	.232	.298	.298	.238
AFT	.151	.163	.205	.256	.210

EXPOSURE (SEC) STAR HOR 1/100 PORT HOR 1/100

FILM FWD 3404 AND SO-180 AFT 3404

(SEE NOTE 2.)

DYNAMIC RESOLUTION (L/MM)

	FWD	HIGH	CONTRAST	244
	FWD	LOW	CONTRAST	163
	AFT	HIGH	CONTRAST	200
	AFT	LOW	CONTRAST	135

UNIT NUMBER FWD 309 AFT 308

B. DISIC UNIT PORT STELLAR

FOCAL LENGTHS(MM) 75.859

STBD-STELLAR INDEX

75.974 77.173

FILTER (WRATTEN) NONE

NONE W/12

EXPOSURE (SEC) 1.5

1.5 1/250 AND 1/500

FILM 3401

3401 3400

RESOLUTION

DUAL STELLAR RESOLUTION NOT AVAILABLE

DISTRIBUTION		
CY	OFFICE	
1	FILE	
2	CABLE SEC.	
	PP&B/ED	
	SECUR.	
	TSSG	25X1
		25X1
	PSG/OC	
	RRD	
	REPRO	
4	AID	
	IEG	
	PROD	
	SCIEN	
	WEST	
	TAM	
	HQS	
	PGM	
	IAG	
	DIA-MA	
	SEAD	
	DIA-CP	25X1
	CMX	

ADVANCE CY
SANITIZED
WITH TEXT

25X1

TOP SECRET

- 2 -

INDEX CONTAINED IN DISIC CAMERA CALIBRATION BOOK UNIT NUMBER 7

3. LENS DISTORTION (PIN CUSHION) (MM)

A. MAIN UNITS	3	2	1	0	359	358	357
FWD	.007	.003	.0	.0	.002	.006	.010
AFT	.003	.002	.0	.0	.0	.002	.003

B. HORIZON CAMERAS

	PORT	STAR	PORT	STAR
RADIAL 10 DEGREES	.01	.01	.02	.02
20 DEGREES	.04	.03	.05	.04
TANGENTIAL	.01	.027	.03	.02

4. CAMERA ANGLES

A. ANGLE BETWEEN PAN CAMERAS 30 DEG 28 MIN 44.33 SEC.

B. DEPRESSION ANGLES BETWEEN HORIZON AND PAN CAMERAS

FWD PORT 14 DEG 59 MIN 24.57 SEC

FWD STAR 15 DEG 31 MIN 38.99 SEC

AFT PORT 15 DEG 09 MIN 16.71 SEC

AFT STAR 16 DEG 16 MIN 38.26 SEC

C. ANGLES BETWEEN STELLAR AND INDEX CAMERAS

STARBOARD STELLAR AND INDEX 99 DEG 55MIN 54 SEC

PORT STELLAR AND INDEX 99 DEG 58MIN 07 SEC

5. TIMING MARKS

FREQUENCY MARKS WILL APPEAR ON THE FILM AT A RATE OF 200 CYCLES PER SECOND.

6. IMAGE MOTION COMPENSATION DATA

	PASSES	REF LEVEL	AMP LEVEL
ID		8	12
5D THRU 16D		6	13
21D THRU 26D, 52D THRU 55D	7		13
32D, 56D THRU 64D	8		13
37D THRU 43D, 84D THRU 90D	7		14
70D THRU 75D	6		14
97D, 98D	8		14
102D	5		15

FOR ALL PASSES PRIMARY PERIOD 3600 SDC, SECONDARY PERIOD 2620,
SECONDARY RAMP FACTOR .063500.

7. PROGRAM TIME DATA

PASS	DAY	HR	MIN	SEC	PROGRAM ON TIME (ZULU TIME)	PROGRAM ON TIME UP RAMP	PROGRAM DURATION
1D	7	23	02	07		1109	37
5D	8	04	59	23		1066	98
6D	8	06	32	50		1355	156
7D	8	06	35	27		1152	131
8D	8	09	24	14		999	216
9AE	8	10	33	40		---	---
9D	8	10	59	01		1367	97
14D	8	18	21	18		1265	27
16D	8	21	20	31		1384	15
21D	9	04	39	23		1138	190
22D	9	06	07	41		1121	32
23D	9	07	36	24		1129	240
24D1	9	09	04	53		1123	65
24D2	9	09	06	45		1235	148
25D	9	10	37	33		1370	133
26D1	9	12	01	51		1114	91
26D2	9	12	09	05		1548	83
32D	9	20	59	06		1473	18
37D	10	04	17	33		1225	122

- 3 -

38D	10	05	47	54	1338	92
39D1	10	07	14	48	1242	36
39D2	10	07	16	03	1317	77
39D3	10	07	17	50	1424	130
40D1	10	08	44	03	1288	25
40D2	10	08	45	36	1381	28
41AE	10	09	49	36	---	--
41D1	10	10	09	40	1116	48
41D2	10	10	13	21	1338	27
42D	10	11	41	50	1340	56
43D	10	13	08	16	1218	34
52D	11	02	24	12	1320	123
54D1	11	05	22	10	1371	120
54D2	11	05	28	17	1737	120
55D	11	06	52	04	1454	45
56D1	11	08	19	59	1417	33
56D2	11	08	21	02	1481	56
57D	11	09	54	31	1777	70
58D1	11	11	15	23	1317	93
58D2	11	11	18	32	1507	93
59D	11	12	50	22	1705	61
64D	11	20	11	42	1633	78
70D1	12	04	59	05	1369	121
70D2	12	05	05	00	1726	144
71D	12	06	30	20	1530	233
72D1	12	07	56	27	1379	47
72D2	12	07	57	42	1455	96
73D	12	09	24	20	1336	177
74D1	12	10	56	18	1540	52
74D2	12	11	00	26	1787	61
75D	12	12	27	47	1713	65
79D	12	18	20	15	1604	29
84D	13	01	37	30	1276	83
86D1	13	04	37	06	1429	95
86D2	13	04	39	30	1573	45
87D	13	06	08	48	1620	180
88D1	13	07	34	06	1429	89
88D2	13	07	36	47	1590	52
89D	13	09	02	30	1422	175
90D	13	10	36	42	1764	136
97D	13	20	55	11	1715	25
98D	13	22	38	17	2594	33
102D	14	04	13	38	1421	234

AFT ONLY

8. TIME CORRELATION (MILLISECONDS)

PASS	CLOCK TIME	SYSTEM TIME	DIFFERENCE
9	217622.620	38203.0158	SEE NOTE 1.
16	256208.799	76789.1833	.011
25	302703.461	36883.8314	.014
32	341189.707	75370.0659	.011
41	387298.919	35079.2639	.014
48	426197.947	73978.2801	.012
57	472709.448	34089.7669	.014
64	511446.773	72827.0800	.012
73	20793.911	32645.1158	.013
79	64745.500	76596.6911	.014
89	105935.286	31386.4643	.013
97	149725.733	75176.8975	.014

- 4 -

106 196327.849 35378.9988 .015

(1)
NOTES: ALL "DIFFERENCE" VALUES ARE PLUS REPEAT PLUS
(2)
SO 180 FILM TO BE UTILIZED IN 1104-2 ONLY
GP-1

T O P S E C R E T

END OF MESSAGE

((NOTE: ABOVE MESSAGE ALSO PASSED



25X1